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ACC NR: AF6018061 SOURCE CODE: 06/0010/66/168/005/0636/0639

AUTHOR: Sinitsyn, V. V.; Alejeva, Ye. V.

ORG: none

TITLE: Effect of fatty acid chain length on rheological characteristics of pseudo-gels in lithium soaps

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 636-639

TOPIC TAGS: lithium, rheologic property, solid viscosity, grease, lubricant, fatty acid

ABSTRACT: The effect of fatty acid chain length (C_{12} - C_{22}) on tensile and shearing strengths, effective viscosity, and shrinkage of greases based on lithium soaps was investigated. The study encompassed lithium soaps based on the following acids: lauric (C_{12}), myristic (C_{14}), palmitic (C_{16}), stearic (C_{18}), and behenic (C_{22}). As measured at 20° and 80°C, the lithium grease based on palmitic acid exhibited highest tensile and shearing strengths. Moreover, maximum effective viscosity and minimum shrinkage were found to coincide with the greases based on fatty acids

Card 1/2

UDC: 541.18.02

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within C₁₆-C₁₇ chain length range. It was found that the rheological characteristics of lithium greases based on C₁₂-C₂₂ remained practically unaffected after aging for 30 days at 120°C. Data on the rheological properties of various lithium greases used in this study are graphed and tabulated. The results obtained in this study are in disagreement with published data indicating monotonic decline of the rheologic properties of greases with increases in fatty acid chain length. The article was presented by Academician P. A. Rebinder on 25 September 1965. Orig. art. has: 2 figures and 4 tables.

SUB CODE: 07/ SUBM DATE: 25Sep65/ ORIG REF: 006/ OTH REF: 003

Card 2/2

...ALEKSEIN, I. ...

in outstanding automotive transportation unit in Kamchatka. Avt.
transp. 43 no.317-8 Mr '65. (MIRA 18:5)

1. Instruktor promyshlenno-transportnogo otdela Petropavlovsk-
Kamchatskogo gorodskogo komiteta Kommunisticheskoy partii
Sovetskogo Soyuza.

1. KRECHETOV, M. M.; KRYKINA, L. M.

~~SECRET~~

Interaction of potassium dichromate with fused sodium and potassium chlorides. Zhurn. neorg. khim. 9 no. 7:1684-1686

1964.

(MIRA 17-9)

L. I. Izmestitel' Filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i onogo chistykh veshchestv.

BELYAYEV, I.M.; LYAKHOVITSKAYA, V.A.; NETESOV, G.B.; MOKHOMOV, M.V.;
ALEYKINA, S.M.

Synthesis and crystallization of antimony sulfide 1zv
AN SSSR. Neorg. mat. 1 no.12:2178-2181 B '65. (MIRA 18:12)

1. Institut Kristallografi AN SSSR. Submitted May 29, 1965.

MARSHAKOV, I.K.; BOGDANOV, V.P.; ALEYKINA, S.M.

Corrosion and electrochemical behavior of alloys of the copper -
zinc system. Part 1. Zhur. fiz. khim. 38 no.7:1762-1769 Jul '64.
(MIRA 18:3)

1. Voronezhskiy gosudarstvennyy universitet.

MOKHOSHEV, M.V.; ALIYKINA, S.M.

Reaction of chromium oxide with sodium and potassium carbonates.
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Submitted May 10, 1965.

ALMYNER, A.L., kand. tekhn. nauk.

Dynamic stresses in hinge-joint jib elements of cranes during

load hoisting. [Isd.] LONITOMASH 43:100-104 '57. (MIRA 11:6)

(Cranes, derricks, etc.)

SLYMER, A.L.

Dynamic loads of the mechanism for changing the boom-out of
cranes. Trudy LPI no.211:121-134 '60. (MIRA 13:11)
(Cranes, derricks, etc.)

ALBYNER, A.L.

Dynamic loads of crane mechanisms and means for their reduction.
Study LPI no.219:92-100 '62. (MIRA 15:12)
(Cranes, derricks, etc.)

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(Floating cranes)
(Pontoons)

ALEYNER, A.I.; ANAN'YEV, A.A.; KOGAN, I.Ya.; LANG, A.G.;
NIKOLAYEVSKIY, G.M.; PLAVINSKIY, V.I.; SAMOYLOVICH, P.A.;
GORBACHEV, A.I., inzh., retsenezent; DUKEL'SKIY, A.I., prof.,
doktor tekhn. nauk, red.; SKOMOROVSKIY, R.V., kand. tekhn.
nauk, red.; MITARCHUK, G.A., red.isd-va; VASIL'YEVA, V.P.,
red.isd-va; SPERANSKAYA, O.V., tekhn. red.

[Handbook on cranes] Spravochnik po kranam. Pod red. A.I.
Dukel'skogo. Moskva, Mashgiz. Vol.3. [Characteristics of
cranes, maintenance and installation] Kharakteristiki kranov,
tekhnicheskaya ekspluatatsiya i montazh. 1963. 340 p.
(MIRA 16:8)

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ALEYNER, A.L., kand.tekhn.nauk, dotsent

Rotation resistance of floating cranes. Izv.vys.ucheb.zav.;
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1. Leningradskiy politekhnicheskij institut imeni Kalinina.

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20599 ALEYNER, A. Z. Novyye dannyye po geografii antarktiki. (Iz zhurn. *Geographical Review* >2a iyun' 1948 g.) Izvestiya Vsesoyuz geogr. o-va, 1949, vyp. 3, s. 342-43

SO: LETOFIS ZHURNAL STATEY - Vol. 28 - Moskva - 1949

ALBYN, A.Z.

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"Geographical names of Antarctica" [In English] Reviewed by A.Z.
Aleinar. Izv.Vses.geog.ob-va no.1:83-86 Ja-Y '55. ~~*****~~ (MIRA 8:4)
(Antarctic regions--Names, Geographical)

ALEYNER, A Z

PHASE I BOOK EXPLOITATION

464

Geograficheskoye obshchestvo SSSR

Antarktika; materialy po istorii issledovaniya i po fizicheskoy geografii. (The Antarctic; Materials on the History of its Exploration and Physical Geography) Moscow, Geografiz, 1958. 445 p. 5,000 copies printed.

Resp. Eds.: Pavlovskiy, Ye. N., Academician; Kalesnik, S. V., Corresponding Member of the USSR Academy of Sciences; Ed.: Grishina, L. I.; Tech. Ed.: Glaykh, D. A.; Map Ed.: Kiseleva, Z. A.

PURPOSE: The book, written in a semi-popular style, is intended for the large circle of geographers interested in the Antarctic region.

Card 1/8

The Antarctic; Materials on the History (Cont.)

464

COVERAGE: The present volume, sponsored by the Geographical Society of the USSR, is a collection of articles authored by several geographers summarizing up to date information on the Antarctic region. It provides an account of exploration and discovery since the first Russian expedition into the Antarctic in 1819, and describes the region's geological and geomorphological structure, glaciation processes, and the water currents of the south polar seas. The last chapter contains a glossary of Antarctic place names which is appearing in Soviet literature for the first time. The book is profusely illustrated with diagrams, photographs, and maps.

TABLE OF
CONTENTS:

Editor's Note

3

Card 2/8

The Antarctic: Materials on the History (Cont.)

464

Shvede, Ye. Ye. Discovery of Antarctica by Russian Navigators in 1819-1821	5
Introduction	5
Preparation for the expedition	6
General plan of the expedition	30
Scientific results of the first Russian Antarctic expedition	43

An account is given of the first Russian Antarctic expedition and the discovery of the Antarctic Continent by Bellinsgauzen and Lazarev. Personnel, equipment, preparations for the trip, the plan of the expedition, navigation in the Antarctic waters and discoveries are described in detail. The hydrographic, cartographic, oceanographic, climatological and physical geographic observations carried on by the expedition are commented on in brief.

Card 3/8

The Antarctic; Materials on the History (Cont.)	464
<u>Aleyner, A. Z.</u> Basic Stages in the Geographic Exploration of the Antarctic	54
Discoveries along the Antarctic coast in the XIX century	54
Studies of the antarctic by land and sea during the first quarter of the XX century	66
Latest studies in the Antarctic by land, sea and from the air	78
Bibliography	90

The author provides brief accounts of the various expeditions, almost exclusively foreign, into the Antarctic from 1819 to 1954 and mentions the different bases established.

<u>Aleyner, A. Z.</u> History of the Cartography of the Antarctic and the Extent of its Cartographic Coverage	95
Cartographic representations of southern polar regions prior to the discovery of Antarctica by the Bellinsgauzen-Lazarev Russian expedition of 1819-1821	95

Card 4/8

The Antarctic; Materials on the History (Cont.)

464

Twentieth century maps of Antarctica based on sea surveys	104
Maps made during the first quarter of the twentieth century based on land and sea surveys	125
Latest maps, based on surveys made on land, sea and from the air (1926-1950)	139
Extent of Antarctica's cartographic coverage	156
The author traces the history of the cartography of the Antarctic region from ancient to modern times, from Ptolemy to the present day.	
Panov, D. G. Geological structure of Antarctica	158
Geological structure of subantarctic and antarctic islands	159
Geological structure of the Antarctic Continent	173
Bibliography	229

The geological structure and geomorphological peculiarities of the Antarctic continent proper and the subantarctic and antarctic islands surrounding it are discussed with a fair amount of detail.

Card 5/8

The Antarctic; Materials on the History (Cont.)	464
Panov, D. G. Geomorphological Characteristics of the Antarctic Region	237
General description of Antarctic relief	237
Geomorphological regions and types of relief in the Antarctic	255
Conclusions regarding the geomorphological structure of the Antarctic region	281
Bibliography	285
The author describes the geomorphological structure of the Antarctic region, i.e. the Antarctic Continent, the antarctic and subantarctic islands, and the ocean floor between the continent and the islands.	
Panov, D. G. Current Glaciation in the Antarctic	288
Factors in the current development of glaciation in the Antarctic	289
Types of ice formations in the Antarctic	293
Card 6/8	

The Antarctic; Materials on the History (Cont.)

464

Brief description of the areas of current glaciation in the	298
Antarctic	
Bibliography	317

The author discusses the types of ice formations and the background conditions and factors in the current glaciation of the Antarctic. At present only an estimated 0.02% of the surface of the Antarctic Continent is ice free, and together with shelf ice it covers an area of 13.5 million km². The Antarctic region comprises 87% of the total glaciated land surface of the Earth and 85% of its total glaciated area.

Buynitskiy, V. Kh. Waters and Ice Formations of the Antarctic	320
Waters	320
Ice formations	356
Extent of the ice cover in different parts of the Antarctic	393
Bibliography	405

Card 7/8

The Antarctic; Materials on the History (Cont.)

464

The Antarctic region is delimited by the northern boundary of the antarctic waters, i.e. where the antarctic waters meet those of the moderate latitudes. The author describes the relief of the ocean floor, the three types of water masses, currents, tides, sea ice, icebergs, and the extent of the ice covering in the Antarctic.

Aleyner, A. Z. Geographic glossary of Name Places in the
Antarctic

407

The list contains about 500 names of the more important locations in the Antarctic.

AVAILABLE: Library of Congress

Card 8/8

MM/cal
28 August, 1958

VERESHCHAGIN, V.N.; IVANOV, Yu.A.; BELYAYEVSKIY, N.A., glav. red.;
ALEKSEYER, A.Z., red.; GRIGOR'YEV, A.V., red.; ZAYTSEV, I.K.,
red.; KLIMOV, P.I., red.; KRASNOV, I.I., red.; LANKIN, A.A.,
red.; MUZYLEV, S.A., red.; OGNEV, V.N., red.; TROSTNIKOVA,
N.Ya., red. izd-va; IYERUSALIMSKAYA, Ye.S., tekhn. red.

[Instruction for compiling and preparing for publication a
geological map at a scale of 1:50,000; supplement to the
instruction for organizing and conducting geological surveys
at a scale of 1:50,000 and 1:25,000] Instruktسيا po sostavle-
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1:50 000; dopolnenie k instruktсии po organizatsii i proizvod-
stvu geologos"emochnykh rabot masshtaba 1:50 000 i 1:25 000.
Moskva, Gengeoltekhizdat, 1962. 41 p. (MIRA 15:6)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany neдр.
(Geology—Maps)

~~ALEKSEY~~, Aron Zalmanovich; LARIONOVA, Antonina Nikolayevna;
CHURKIN, Vladimir Gerasimovich; PERVAKOV, I.L., red.;
CHERUTCH, M.P., mladshiy red.; MAL'CHEVSKIY, G.N., red.
kart; NOSHELEVA, S.M., tekhn. red.

[Gerardus Mercator] Gerard Merkator. Moskva, Gos. izd-vo
geogr. lit-ry, 1962. 79 p. (MIRA 15:7)
(Mercator, Gerardus, 1512-1594)

ALEYNER, A.Z.

Atlas of Antarctica. Mat. Otd. mat. geog. i kart. Geog. ob-va
SSSR no.1:49-51 '61. (MIRA 17:8)

15

PRODUCTION OF PIPES FROM STAINLESS AND HEAT-RESISTING STEELS.
 O. F. Pishikov, O. G. Alekshchenko, and N. S. Alferova. (Bulletin
 de l'Association Technique de l'Acier et des Metaux Non-Ferreux,
 1948, vol. 2, Oct. p. 18-22). This is a French translation of an
 article, which appeared in Russian, in Stal, 1948, No. 1, pp. 51-54
 (see Journ. I. and S.I., 1948, vol. 159, July p. 333). R.F.F.

2-24, 2-4 A-6

Stainless Steel Inst.

ASAC 11.0 METALLURGICAL LITERATURE CLASSIFICATION

ALEYNIKHENKO, V.G., 1911-1965.

Automation and mechanization of industrial processes at the
Karaganda metallurgical plant. Metallurg 10 no.6:35 Je '65.
(MIRA 18:6)

1. Nachal'nik tsukha kontrol'no-izmeritel'nykh priborov i
avtomatiki Karagandinskogo metallurgicheskogo zavoda (for
Aleynikhenko). 2. Karistitel' nachal'nika tekhnicheskogo
otdela Karagandinskogo metallurgicheskogo zavoda (for
Shchegrin).

12(2), 25(1), 28(1) SOV/128-59-8-11/29
AUTHOR: Tatsiyevsky, V.V., Raskin, K.L., and Aleynik, B.Z.,
Engineers
TITLE: Semi-Automatic Core Shakeout Installation for Motor
Cylinder Head Castings
PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 8, pp 24 - 25 (USSR)
ABSTRACT: The shake-out work is one of the noisiest in processes in the factory. In order to eliminate this noise and create better working conditions, the authors have designed a semi-automatic shake-out installation which brings the motor cylinder head castings by conveyor to a vibrator. The walls of the vibrator are insulated with thick felt and rubber. There are 5 drawings.

Card 1/1

ALEKNIK, I. A., Cand Tech Sci -- (diss) "Rational friction drive in milk separators." Moscow, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Inst of Mechanization and Electrification of Agriculture); 130 copies; price not given;(KL, 24-60, 132)

ALEYNIK, M.D.

Diagnostic value of the agglutination reaction with virus-coated
bacteria (AVB). Zhur.mikrobiol.epid. i immun. 29 no.5:60-61
My '58 (MIRA 11:6)

1. In Gorkovskogo instituta epidemiologii i gigiyeny.

(AGGLUTINATION,

diag. value of agglut. reaction with virus-loaded
bact. (Rus))

(VIRUSES,
same)

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same)

ALEYNIK, M.D.; TARANYUK, Z.Ye.

Heterohemagglutination reaction with chicken erythrocytes as a method for the laboratory diagnosis of Botkin's disease. Vop. virus. 5 no. 1:83-87 Ja-F '60. (MIRA 14:4)

1. Gar'kovskiy institut epidemiologii i gigiyeny.
(HEPATITIS, INFECTIOUS) (BLOOD—AGGLUTINATION)

ALBYNIK, M.D.

Diagnostic important of different indicators of aldolase activity
in Botkin's disease; author's abstract. Zhur. mikrobiol. epid i
immun. 31 no.7:134 J1 '60. (MIRA 13:9)

1. In Ger'kovskogo instituta epidemiologii i gigiyeny.
(ALDOLASE) (HEPATITIS, INFECTIOUS)

ALEYNIK, M.D., TARANYUK, Z.Ye.; NASONOVA, A.S.; NIKOLAYEVSKAYA, G.V.;
ZOTOVA, A.G.

Study of the effectiveness of prophylaxis of Botkin's disease
using gamma globulin in childrens' institutions in Gorkiy and
Dzerzhinsk. Vop.virus.7 no.5:617-618 S-O '62. (MIRA 15:11)

1. Gor'kovskiy institut epidemiologii i mikrobiologii, Gor'kovskaya
oblastnaya sanitarno-epidemiologicheskaya stantsiya i Sanitarno-
epidemiologicheskaya stantsiya avtozavodskogo rayona, Gor'kiy.
(GAMMA GLOBULIN)

(GORKIY---HEPATITIS, INFECTIOUS)
(DZERZHINSK (GORKIY PROVINCE)---HEPATITIS, INFECTIOUS)

MEYNIK, M.S.; SHIMAN, E.Sh.; GRUNSTEIN, Ye.A.; SHTEIN, I.M.

Results of the isolation of cytomegaloviruses from the blood
and secretions of patients with epidemic keratitis. Vopr.med.virus.
no.9:22-26 '64. (MIRA 1964)

1. Gorbavskiy Institut epidemiologii i mikrobiologii.

ALYNIK, S.F.

Discovery of the Shumlianskii's capsule. Klin. med., Moskva 30 no.
6:89-91 June 1952. (GLML 22:5)

1. Candidate Medical Sciences. 2. Of the Department of Faculty Therapy
of Vinnitsa Medical Institute (Director -- Prof. I. Ya. Dayneka).
3. Gives priority for discovery of Bowman's capsule to Shumlyanskiy.

ALKINIKOV, A., inzh.; RUMOV, A., inzh.; DASHNEVSKIY, Ya., kand.tekhn.nauk

Large three-phase furnace with a rotating bath for smelting ferro-silicon. Tekh.-ekon.bul. no.1/2:13-18 Ja-F '59. (MIRA 12:4)
(Electric furnaces)

KOGAN, A.B., gornyy inzh.; ~~ALTYNIKOV, A.A.,~~ gornyy inzh.; DUBOV, Ye.D.,
gornyy inzh.; IVANOV, ~~N.N.,~~ gornyy inzh.

Investigating manifestations of rock pressure by means of GS-type
hydraulic jacks. Ugol' Ukr. 3 no.4:12-15 Ap '59.

(MIRA 12:7)

(Subsidence (Earth movements)) (Hydraulic jacks)

ALEXANDER, A. A.

Stages and Fluctuations in the Course of Recession of a Glacier in the Northwestern Part of the Russian Plain. A.A.Alexandrov, Izv. SSSR, Vol. 11, no. 1, pp. 211-213, Apr 63.

An investigation in the Volkhov, Luga, and Neva river basins which explains the law of distribution of complex glacial deposits. This law, in opposition to notion of multiple glaciers, is based on actual data of the hypothesis that, in a single process of glacial recession, a considerable number of fluctuations take place, namely, stages which are accompanied by successive advance and retreat of the edge of the glacier.

Presented by Acad. A.A.Polkhanov

255713

ALBINIKOV, A. A.

The retreat of the glacier in the northwestern part of the Russian plain, stages and oscillations;

p. 347 (Mokeliniai Pranesimai) Vol. 4, 1957, Vilnius, Lithuania

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

АЛЕЙНИКОВ, А. А.
AUTHOR: Aleynikov, A. A. 20-3-39/59

TITLE: A Stratigraphic Scheme of the Quarternary Deposits of the North-Western Part of the USSR and of the Contiguous Regions (Skhema stratigrafii chetvertichnykh otlozheniy severo-zapadnoy chasti SSSR i sopredel'nykh rayonov).

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 3, pp. 553-554 (USSR)

ABSTRACT: The author continued his work (ref. 1) on the stages of recession and of oscillations of the glacier of the mentioned area. He gives a scheme of the deposits as formed during the last glaciation (tab. 1). Five stages could be found; the earliest was 1) Beresinskaya, then 2) Dvinskaya, 3) Luzhskaya, 4) Nevskaya, and finally 5) Finskaya. According to this order the glacier withdrew to the North. Also the inter stages between them were investigated correspondingly. The earliest and at the same time the first inter stage after the interglacial time Beresinsko-Dvinskiy was characterized by a moderately cold climate (similar to one in the same area today). The next three inter stages named according to the stages before or after them were colder due to the glacier in near proximity. Their climate was

Card 1/3

**A Stratigraphic Scheme of the Quaternary Deposits of the
North-Western Part of the USSR and of the Contiguous Regions**

20-3-39/59

subarctic or arctic. The rules of withdrawal of the glacier observed made possible the important conclusion that the formation of the Minskaya mass and its analogs at the Neva River preceded the earliest stage i.e. the Beresinskaya stage and not Nevskaya stage. A marine mass is stratified at the same stratigraphic height with the continental interglacial deposits. This age assignment deviates from the opinion of some scientists that the Minskaya strata belong to the late glacial stage. Besides the deposits of the last glaciation (Dneprovskoye) marine interglacial deposits were observed which indicates a complete disappearance of an older glaciation (Dneprovskoye). This latter glaciation covered a greater area than the most recent one (Valdayskoye - according to the opinion of the author). Although the history of the Dneprovskoye glaciation consisted also of stage and inter-stage periods, these stages and oscillations in the area covered later by the last glaciation can be studied only with difficulties, for the corresponding formations were subjected to denudation. However, this study is possible in the area located extraglacially will respect to the

Card 2/3

**A Stratigraphic Scheme of the Quarternary Deposits of the
North-Western Part of the USSR and of the Contiguous Regions**

20-3-39/59

last glaciation. The morainal stage zones of the older glaciation are often considered independent and thus, the number of glaciations and interglacial periods is augmented, which is not correct. The author observed only 2 glaciations and one interglacial period in the area investigated. They represent the main chapters of the geological history of the North-Western part of the USSR and the contiguous parts in the Quarternary period. There are 1 figure, 1 table and 2 references, all of which are Slavic.

ASSOCIATION: State University imeni A. A. Zhdanov, Leningrad
(Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova)

PRESENTED: June 21, 1957, by D. V. Nalivkin, Academician

SUBMITTED: February 18, 1957

AVAILABLE: Library of Congress

Card 3/3

ALBETNIKOV, A. A., Cand Tech Sci -- (diss) "A Selection of the Rational Characteristics of Supporting Timbers on the Basis of a Study of the Nature of the Movement of the Overlying Strata (In the Conditions of the Donetsk Coal Field)." Leningrad, 1960, 17 pp (Ministry of Higher and Secondary Specialist Education RSFSR; The Leningrad Orders of Lenin and Labor Red Banner Mining Institute in G. V. Flekhanov, Chair of Exploitation of Stratified Deposits) 200 copies, no price given -- printed on duplicating machine (KL, 1-60, 122)

ALMYNIKOV, Anton Afanas'yevich; BUSORGINA, N.I., red.; ZHUKOVA, Ye.O.,
tekhn.red.

[Basic problems relative to the study of quaternary sediments in
the northwestern U.S.S.R.] Ob osnovnykh voprosakh izucheniia
chetvertichnykh (antropogenovykh) otlozhenii Severo-Zapada SSSR.
Leningrad, Izd-vo Leningr.univ., 1960. 64 p. (MIRA 13:4)
(Russia, Northwestern--Glacial epoch)

BOKII, V.B.; ALEKNIKOV, A.A.

Possibility of working thin flat seams by means of longwalls
without supporting the working-face area. Sbor.trud.Inst.gor.dela
AN URSSR no.8:53-57 '61. (MIRA 15:2)
(Mining engineering)

ALEKSEY A.A., kand.tekhn.nauk; BOGATY, V.B., kand.tekhn.nauk;
GOINCHARENKO, D.I., kand.tekhn.nauk; DROZDOV, V.L., inzh.

Scraper-plow unit. Mekh.i avtom.proisv. 16 no.10:25-26
0 '62. (MIRA 15:11)
(Coal-mining machinery)

ALEYNIKOV, A.A.

Marginal formations of the last glaciation in the northwestern part of the East European Plain and their geomorphologic and stratigraphic relationship. Trudy Kom. chetv. per. 21:41-46 '63.
(MIRA 16:10)

1. Leningradskiy gosudarstvennyy universitet.

ALEYNIKOV, A.A., kand.tekhn.nauk; NEDODAYEV, N.V., inzh.;
REZNICHENKO, V.Ya., inzh.

Behavior of wall rock during the working of steep seams with a
diagonal face. Ugol' Jkr. 7 no.11:22-24 N '63. (MIRA 17:4)

ALEXANDROV, A.A., kand. tekhn. nauk; CHUBENKO, P.P., gornyy inzh.; SMALIY,
V. Ye., gornyy inzh.

Technical and economic analysis of the conditions of the hvd-
raulic breaking of coal in thin seams. Ugol' 39 no.6:34-35: 3s'64
(MIRA 17:7)

1. Institut gornogo dela imeni M.M. Fedorova.

ALEKSIYEV, A. I., inzhener.

Mechanism of charging the burden in high-silicon iron alloys.
Stal' 17 no.3:277-279 Mr '57. (MIRA 10:4)

1. Kuznetskiy zavod ferrosplavov.
(Iron alloys--Metallurgy)

ALETHIKOV, A.I.

Spring clips for electrodes. Biml. TSNICHM no. 9:41-43 '58.
(MIRA 11:7)

1. Kuznetzkiy zavod ferrosplavov.
(Fastenings)

ALMYNIKOV, A. V.

Rapid overhauling of ferro-alloy furnaces. Bul. TSNIT'KH no. 2141-42
198. (MIRA 11:5)

1. Kuznetskiy zavod ferrosplavov.
(Metallurgical furnaces--Maintenance and repair)

ALBYNIKOV, A. I.; BAKLUSHIN, I. L.; VIKSIN, I. N.; GRESNIK, V. M.; LYULENKOV, V. I.;
← SABANTSEV, V. P.; SHREGIN, S. A.; SOKOLOV, L. D.; SHIROKOV, V. N.

Investigating the mechanism of the rotation process of ferroalloy
furnace baths. Izv. vys. ucheb. zav.; Chern. met. no. 8:181-187 '60.

(MIRA 13:9)

1. Sibirskiy metallurgicheskiy institut.
(Rotary hearth furnaces) (Iron alloys)

ALEKNIKOV, A.I.; BAKLUSHIN, I.L.; VEKSHIN, I.N.; VOSKRESENSKIY, V.A.;
GONCHAROV, O.M.; LYULENKOV, V.I.; SHIROKOV, V.N.

Investigating the throw mechanism of a charging machine on
ferroalloy furnaces. Izv. vys. ucheb. zav.; chern. met. 6
no.6:204-208 '63. (MIRA 16:8)

1. Sibirskiy metallurgicheskiy institut.
(Metallurgical furnaces—Equipment and supplies)

"APPROVED FOR RELEASE: 09/24/2001

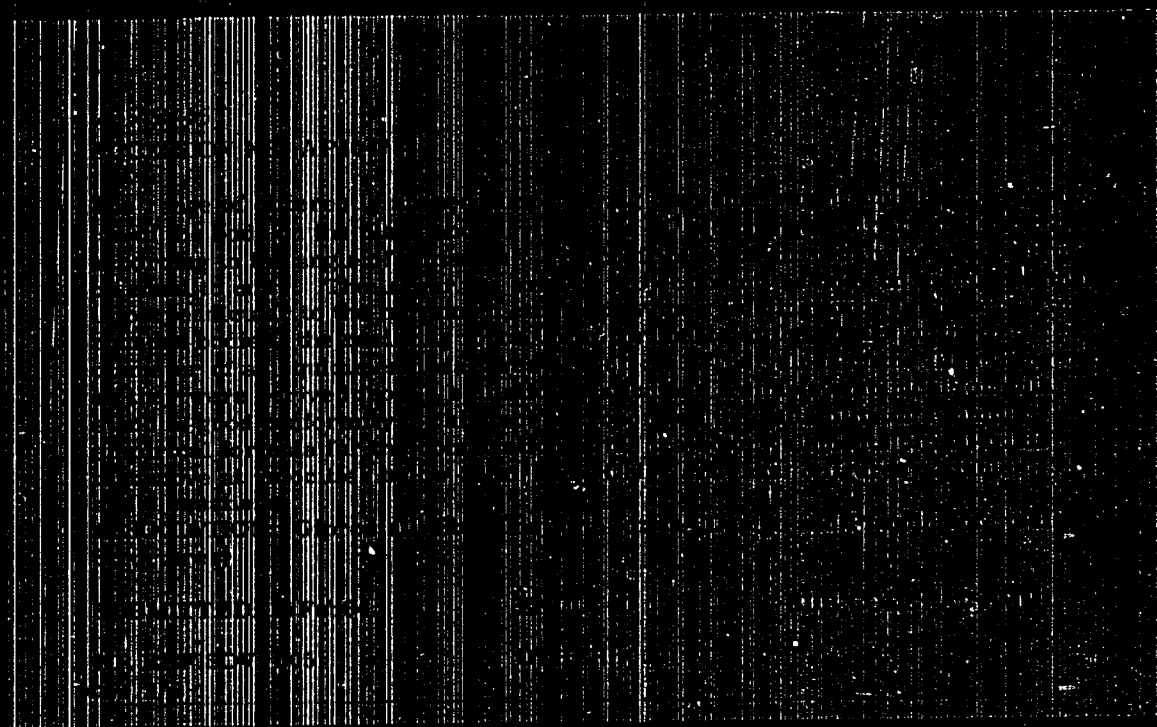
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ALEKSEYEV, A.I.

Calculating the projection distance and scattering of the material

in the air. *Isv. vys. ucheb. zav.; Chern. met.* 7 no.10:165-170 '64.
(MIRA 17:11)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy po
proizvodstvu stali.

S/574/62/000/002/019/019
D218/0308

AUTHORS: Aleynikov, A.I., and Kuznetsov, A.A.

TITLE: Solution of the converse problem in the case of a gravitational step

SOURCE: Akademiy, nauk SSSR, Ural'skiy filial, Institut geofiziki, Yekaterinburg, no. 2, 1962. Geofizicheskii sbornik, no. 3, 333-339

TEXT: This paper is concerned with the analysis of anomalies in the gravitational acceleration with the view to obtaining information about the presence and nature of semi-infinite prisms below the surface. It is suggested that the position of the upper and lower faces of the prism (x_1 and x_2) may be determined from the ratio of the maxima values of the horizontal gradient, v_{max} , and the areal value of the anomaly, which is given by (in units of H)

$$K = \frac{v_{max}}{V_H} = \frac{2 \ln 2}{\pi} \frac{x_2}{x_1} \quad (5)$$

Card 1/3

Solution of the converse

8/874/62/000/002/019/019
D218/U308

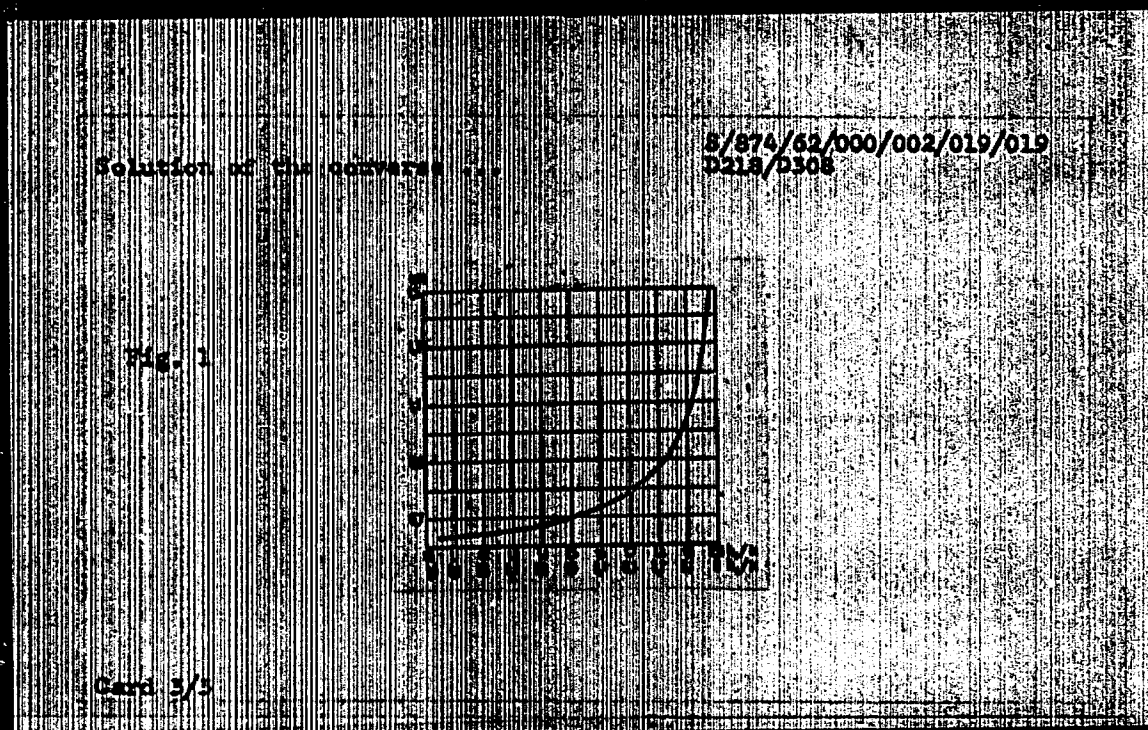
where Δg_0 is the value of the anomaly at the point taken as the origin at which $V_{00} = V_{00}^0$. Fig. 1 shows a nomogram which may be used to determine H_1 and H_2 in units of H (the mean depth of the prism below the surface). The excess density can be determined from the formulas:

$$\sigma = \frac{\Delta g_{00} - \Delta g_{01}}{2H(H_2 - H_1)} \quad (6)$$

$$\sigma = \frac{V_{00} - V_{01}}{2H \ln \frac{H_2}{H_1}} \quad (6')$$

where k is the gravitational constant. Examples of the applications of this method to field observations are given. There are 3 figures and 1 table.

Card 2/3



ALMTINOV, A.I.; STADUKHIN, V.D.; ULITINA, G.G.

Interpretation of magnetic and gravity measurements using data of
artificial magnetic biasing. Trudy Inst.geofiz.UFAN SSSR no.3:97-
102 '65. (MIRA 18:8)

ORLOV, R.V., kand. tekhn. nauk; ALEYNIKOV, B.I., inzh.; BAZYLEV, V.G.,
kand. tekhn. nauk

Controlling the averaging process in ore mining with the
help of electronic computers at the "Lebedin" strip mine
in the Kursk Magnetic Anomaly. Gor. zhur. no.2:48-51 F '65.
(MIRA 18:4)

1. Institut gornogo dela im. A.A.Skochinskogo (for Orlov,
Aleynikov). 2. Nauchno-issledovatel'skiy institut Kurskoy magnitnoy
anomalii im. L.D.Shev'yakova (for Bazylev).

ALEYNIKOV, B.I., inzh.; ORLOV, R.V., kand. tekhn. nauk; BAZYLEV, V.G., kand.
tekhn. nauk

Algorithm of the control of a mining complex with an averaging
system; Labedi mine. Izv. vys. ucheb. zav.; gor. zhur. 3 no.2:
20-25 '65. (MIRA 18:5)

1. Institut gornogo dela imeni A.A.Skochinskogo (for Aleynikov,
Orlov). 2. Nauchno-issledovatel'skiy institut po problemam
Kurskoy magnitnoy anomalii imeni L.D.Shevyakova (for Bazylev).

CHERNOSOV, Yu.A., kand.tekhn.nauk; ALEKSIYEV, B.I., inzh.

Methods of selecting the parameters of working faces in automatic
programming control of rotary excavators. Nauch.sob.IGD 24:84-94
165. (MIRA 18:10)

ALEYNIKOV, P. K. Cand Tech Sci -- (diss) "The Effect of Certain
~~XXXXXXXXXXXX~~ Physical-Mechanical Properties of Friable Materials
on the Process of Their Grinding." Len, 1957. 24 pp 22 cm.
(Academy of Sciences USSR, Inst of Chemistry of Silicates), 120
copies (KL, 27-57, 106)

- 24 -

ALEKSEY, F. K.
ALEKSEY, F. K.

Determining basic indices of the mutual polishing method. Stek.1 ker.
14 no.8:7-11 Ag '57. (MIRA 10:10)

1. Institut khimii silikatov AN SSSR.
(Grinding and polishing)

ALEKSEYNIKOV, F.K.

AUTHOR: ALEKSEYNIKOV, F.K. PA - 2548
 TITLE: Influence of Abrasive Powder Microhardness on the Value of Grinding Coefficient. (Vliyaniye mikrotverdsti abrazivnogo poroshka na snacheniyе koeffitsientov ob'yemnoy sozhlifovyvaemosti, opredelyayemykh metodom vzaimnogo shlifovaniya, Russian)
 PERIODICAL: Zhurnal Tekhn.Fiz., 1957, Vol 27, Nr 3, pp 567-574 (U.S.S.R.)
 Received: 4 / 1957 Reviewed: 5 / 1957
 ABSTRACT: Investigations were carried out with: marble, glass with 80 weight % PbO and 20 weight % SiO₂, optical glasses TF-4, F-2, BK-6, K-8, highly transparent quartz glass, rock crystal and ruby. The following abrasive powders were used: quartz sand Nr. 100, 120 and silicon carbide Nr. 270, 100, 120. The coefficients of space-polishability (N) of brittle substances are constant and only in cases in which the microhardness of these powders amounts to the 2- to 3-fold of the hardest of substances to be polished, they do not depend on the nature and grain size of the powder. The coefficients of space polishability of brittle substances can be computed according to the relation of their microhardness. In order to obtain constant values for the coefficients of the space polishability it is necessary to work for a considerable time on the initial surface with the abrasive powder with which the test

Card 1/2

PA - 2548
Influence of Abrasive Powder Microhardness on the Value of
Grinding Coefficient.

will be carried out. Besides, it is necessary to chamfer the
sample to be ground. (8 tables and 2 illustrations).

ASSOCIATION: Silicate-Chemical Institute, Leningrad
PRESENTED BY:
SUBMITTED: 15.9.1956
AVAILABLE: Library of Congress

Card 2/2

Aleynikov, F. K.

AUTHOR: Aleynikov, F. K.

57-12-6/19

TITLE: Influence of Some Physical and Mechanical Properties of Brittle Materials on the Process of Their Polishing.
(Vliyaniye nekotorykh fiziko-mekhanicheskikh svoystv khrupkikh materialov na protsess ikh shlifovki).

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1957, Vol. 27, Nr 12, pp. 2725-2737 (USSR)

ABSTRACT: In this paper, the influence of the essential physical and mechanical properties of brittle materials characterizing the strength of these materials on the basic parameters designating the polishing process of these materials is investigated. These properties comprise: micro-strength, micro-shear strength, dispersion strength, elastic properties (as Young's modulus, shearing modulus and poisons number), whereas the basic parameters comprise: the power, the thickness of the elevated and of the destroyed layer. It is shown, that the basic parameters characterizing the polishing process of brittle materials depend on the physical and the mechanical properties of the material. It is further shown, that these quantities are

Card 1/3

Influence of Some Physical and Mechanical Properties of Brittle Materials on the Process of Their Polishing.

57-12-6/19

connected with the above-mentioned properties under investigation by a function only in the case of identical brittleness. The brittleness is characterized by the

criterion $T = \frac{\tau_s}{R_g}$. In the case of the materials under

investigation here it equals 2.3 to 2.8. τ_s denotes the shear strength, R_g the breaking strength, T the brittleness or plasticity. The relations obtained here between the basic parameters of the polishing process and the physical and mechanical properties of the material may be used for the computation of the technological technique of the polishing process of these materials. The investigation was directed by N. N. Kachalov, corresponding member of the AN USSR, P. Ya. Bokin, V.P. Barzakovskiy and A. I. Korelov collaborated. The investigation was extended to: Marble, glass 3, quartz glass, ruby, and rock-crystal. There are 6 figures, 4 tables, and 21 references, 20 of which are Slavic.

Card 1/3

Influence of Some Physical and Mechanical Properties of Brittle Materials on the Process of Their Polishing. 57-12-6/19

ASSOCIATION: Institute for Silicate Chemistry AN USSR Leningrad (Institut khimii silikatov AN SSSR Leningrad).

SUBMITTED: November 5, 1956.

AVAILABLE: Library of Congress

Card 3/3

0726

15.2510

S/020/61/141/003/014/021
B101/3117

AUTHORS: Aleynikov, F. K., Slizhis, V. A., Paulavichyus, R. B., and
Dundzis, P. V.

TITLE: Direct electron-microscopic examination of the fine structure
of glass

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 141, no. 3, 1961, 674-676

TEXT: Since the structure of replicas disturbs the electron-microscopic examination of glass, the authors developed a method of direct electron-microscopic glass examination. They used a JEM-5V electron microscope. Glass films were obtained from 0.2-0.5 mm thick glass laminas by grinding and polishing, or by blowing the molten glass with subsequent etching. Glass laminas were dissolved in HF until they permitted good penetrability to the electron beam. The laminas were first etched with 20%, then with 10; 4; 2; and 0.5% HF. Blown glass was etched with 4; 2; and 0.5% HF. Distinct fine structures were also obtained by etching with lye. The electron-microscopic examination showed that two-, three-, and multi-component glasses were not homogeneous. [Abstracter's note: electron
Card 1/3

20726

S/020/61/141/003/014/021
B:01/3117

Direct electron-microscopic ...

microphotographs not reproducible.] Microheterogeneities can be deciphered by a proper choice of the solvent. The following dimensions of microheterogeneities were found:

Type of glass or its composition	Dimensions of microheterogeneities,
Optical quartz glass	-
Glass of quartz tubes	-
$\text{Na}_2\text{O} \cdot 5\text{SiO}_2$	60 - 150
$\text{Na}_2\text{O} \cdot 1.5\text{B}_2\text{O}_3 \cdot 5\text{SiO}_2$	50 - 150
$\text{Na}_2\text{O} \cdot \text{CaO} \cdot 5\text{SiO}_2$	60 - 80
$\text{Na}_2\text{O} \cdot \text{ZnO} \cdot 5\text{SiO}_2$	30 - 150
$\text{Na}_2\text{O} \cdot \text{CdO} \cdot 5\text{SiO}_2$	25 - 40
$\text{Na}_2\text{O} \cdot 2.5\text{BaO} \cdot \text{SiO}_2$	60 - 80
$\text{Na}_2\text{O} \cdot \text{B}_2\text{O}_3 \cdot 5\text{SiO}_2$	80 - 150
$\text{Na}_2\text{O} \cdot 9\text{B}_2\text{O}_3 \cdot 15\text{SiO}_2$	
Card 2/3	

Microheterogeneity of the skeleton

30726
S/020/61/141/003/014/021
B101/B117

Direct electron-microscopic ...

Type of glass or its composition	Dimensions of microheterogeneities,
Window sheet glass	60 - 80
Cover glass	80 - 150

Microinhomogeneities do not only depend on the type of thermal treatment but also on the glass composition. There are 2 figures, 1 table, and 8 references: 6 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: I. Warshaw, J. Am. Ceram. Soc., 1, 4 (1960).

ASSOCIATION: Institut khimii i khimicheskoy tekhnologii Akademii nauk LitSSR (Institute of Chemistry and Chemical Technology of the Academy of Sciences Litovskaya SSR)

PRESENTED: May 30, 1961, by N. V. Belov, Academician

SUBMITTED: May 30, 1961

Card 3/3

ALEXNIKOV, F.K.

Determination of the surface energy of brittle materials by
the method of mutual grinding. Trudy AN Lit. SSR. Ser. B no.:
61-67 '62. (CIA 18:3)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

~~SECRET~~

certain physicochemical properties. *Chem. Ber.* 1961, 94, 1150.

Trudy M. Lit. 387. Ser. B. v. 2: 4-93

1. История Индии и Индонезии (1957 г.)

L2559

S/236/62/000/002/002/004
E071/E135

AUTHORS: Aleynikov, F.K., Paulavichyus, R.B., and Slizhis, V.A.

TITLE: A study of some physico-mechanical properties of
three-component glasses

PERIODICAL: Trudy Akademii nauk Litovskoy SSR, Seriya B, 2(29),
1962, 69-94

TEXT: A systematic investigation was made of the micro-hardness, microstrength (crack resistance) and brittleness of glasses of the following compositions: $R_2O \cdot xRO \cdot 5 SiO_2$, where $R_2O = Li_2O, Na_2O$ and K_2O ; $RO = BeO, MgO, CaO, ZnO, SrO, CdO, BaO$ and PbO ; $x = 0.5, 1.0, 1.5, 2.0, 2.5, 3.0$. In addition, the system $xR_2O \cdot 5 SiO_2$ and the ternary sodium calcium silicate system in which the proportions of both sodium and calcium oxide were varied, was also studied. The glasses investigated were prepared from very pure components and molten in platinum crucibles. All glasses were preliminarily annealed for 4 hours at 450-650 °C (depending on composition) and then, after experimental determination of their softening temperature, were re-annealed for 2 hours at 10-15 °C below the softening temperature. Glasses which showed

Card 1/4

A study of some physico-mechanical... S/236/62/000/002/002/004
E071/E135

a tendency to crystallisation were not submitted to the secondary annealing. Two types of specimens were used for the investigations: cylindrical 15-20 mm diameter, 5-15 mm height; and small glass chips 1-4 mm diameter in which no stresses could be detected with a polariscope. The microhardness was determined by means of a diamond pyramid indenter; the microstrength and the brittleness criterion were calculated from the dimensions of the indentations, using the following formulae of N.K. Dertev:

$$R = 4800 \frac{P (1 + 2\mu)}{4d^2 + l^2} \quad (2)$$

$$T = 0.61 \left(4 + \frac{l^2}{d^2} \right) \left(\frac{1 - 2\mu}{1 + 2\mu} \right) \quad (3)$$

where: R - microstrength in tension, kg/mm²; T - brittleness criterion; P - indenter (load), g; l - length of crack at the angles, microns; d - length of the diagonal of the indentation, microns; μ - Poisson coefficient.
According to preliminary experiments on homogeneous optical glass
Card 2/4

A study of some physico-mechanical... 8/236/62/000/002/002/004
E071/E135

K-8, residual stresses have no noticeable effect on the length of cracks in the indentations unless they are of the order of 100 $\mu\text{m}/\text{cm}$; the values for some of the synthesised glasses were 10-50 $\mu\text{m}/\text{cm}$. The residual stresses in small glass chips, obtained by thermal cracking or mechanical breaking of large pieces, do not disappear although the polariscope does not show presence of stresses. It was found (using glass $\text{Na}_2\text{O} \cdot \text{CaO} \cdot 5 \text{SiO}_2$) that melting of glass during 2 and 4 hours has no practical influence on its strength characteristics, while a prolonged high temperature annealing lowers the microhardness and increases the resistance to cracking. As a rule, with increasing indenter load (50-150 g) the microhardness of glasses free from traces of crystallisation decreases by 3-8%, the microstrength decreases by 25-35%, but the brittleness criterion increases by 15-20%. Conclusions:
1) As regards their influence on increasing the microhardness, alkali earth oxides can be placed in the following order:
 $\text{BeO} > \text{CaO} > \text{MgO} > \text{SrO} > \text{BaO}$ and $\text{ZnO} > \text{CdO}$; and as regards their influence on the microstrength, in the following order:
 $\text{BeO} > \text{MgO} > \text{CaO} > \text{SrO} > \text{BaO}$ and $\text{ZnO} > \text{CdO}$.

Card 3/4

A study of some physico-mechanical ... S/236/62/000/002/002/004
E071/E135

- 2) Alkali oxides increase the microhardness and microstrength of glasses in the following order: $\text{Li}_2\text{O} > \text{Na}_2\text{O} > \text{K}_2\text{O}$.
 - 3) Alkali oxides lower the brittleness of glasses in the following order: $\text{K}_2\text{O} > \text{Na}_2\text{O} > \text{Li}_2\text{O}$.
 - 4) Glasses of the same microhardness but with lower values of the brittleness criterion are stronger.
 - 5) In the ternary system $\text{Na}_2\text{O}-\text{CaO}-\text{SiO}_2$ the microhardness depends mainly on the proportion of calcium oxide.
- There are 8 figures and 6 tables.

ASSOCIATION: Institut khimii i khimicheskoy tekhnologii.
Akademii nauk Litovskoy SSR)
(Institute of Chemistry and Chemical Technology,
AS Lithuanian SSR)

SUBMITTED: November 18, 1961.

Card 4/4

ALEKSEYEV, E.K.; DONIKOV, P.V. [Kandzys, P.]; PAULAVICHUS, R.B.
[Paulavichius, R.]; SLIZHIS, V.A. [Slizys, V.]

Direct electron microscope study of the fine structure of
two-, three, and multicomponent silicate glasses. Trudy
AN Lit. SSR. Ser. B no.2:95-108 '62.

(MIRA 18:3)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

S/236/62/000/004/003/009
D204/D307

AUTHORS: Slizhis, V. A., Aleynikov, F. K. and Paulavichyus, R.B.

TITLE: The selection of composition for the production of foamed glass

SOURCE: Akademiya nauk Litovskoy SSR. Trudy. Seriya B, no. 4, 1962, 71-76

TEXT: Sheet window glass, bottle glass and laboratory-prepared $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3\text{-CaO-MgO-Na}_2\text{O-K}_2\text{O}$ glasses were investigated in an effort to reduce the required foaming temperature and therefore lower the costs of this processes. The alkali contents of the laboratory glasses were 15 - 17% and 19 - 20%. The specimens were foamed at 620 - 870°C, using 2% (by weight) of north-western Lithuanian limestone from the "Karpenay" deposit as the foaming agent, and their weights by volume were determined as a function of the foaming temperature. It was found that the latter property was considerably raised by small amounts of Al_2O_3 , and was lowered

Card 1/2

The selection of ...

S/236/62/000/004/003/009
D204/D307

by Fe_2O_3 and Na_2O , although large additions of the alkali made the glass hygroscopic. Thus the cheap, Fe-containing bottle glass (from the "Alyalsotas" factory) could be foamed at lower temperatures than the sheet window glass, i.e. at $730 - 830^\circ\text{C}$ with limestone or dolomite, and at $730 - 800^\circ\text{C}$ with coke. At higher temperatures the pores were larger and more uneven. The foaming range could be increased by the addition of CaO and MgO . There are 3 tables.

ASSOCIATION: Institut khimii i khimicheskoy tekhnologii Akademii nauk Litovskoy SSR (Institute of Chemistry and Chemical Technology, Academy of Sciences of the Lithuanian SSR)

SUBMITTED: March 24, 1962

Card 2/2

S/236/62/000/002/003/004
E071/E135

AUTHORS: Aleynikov, F.K., Dundzis, P.V., Paulavichyus, R.B.,
and Slizhis, V.A.

TITLE: A direct electronmicroscopic investigation of the fine
structure of di-, tri- and multi-component silicate
glasses

PERIODICAL: Trudy Akademii nauk Litovskoy SSR, Seriya B, 2(29),
1962, 95-108.

TEXT: In view of the scarcity and some uncertainties of the
results obtained in published investigations, a study of the fine
structure of transparent glasses was undertaken, on the following
types of glass: $\text{Na}_2\text{O} \cdot 5 \text{SiO}_2$, $\text{R}_2\text{O} \cdot x \text{RO} \cdot 5 \text{SiO}_2$ (where $\text{R}_2\text{O} = \text{Li}_2\text{O}$,
 Na_2O , K_2O ; $\text{RO} = \text{BeO}$, MgO , CaO , ZnO , SrO , CdO , BaO , PbO ;
 $x = 0.5, 1.0, 1.5, 2.0, 2.5$ and 3.0) as well as on some multi-
component glasses - ordinary sheet glass, glass electrodes etc.
The development of a suitable method was done using glass of
composition $\text{Na}_2\text{O} \cdot \text{CdO} \cdot 5 \text{SiO}_2$. The electron microscope used had a
resolving power of about $8-10 \text{ \AA}$ (magnification 50-100 thousand).
Initially, carbon replicas with a preliminary shading of a fresh
Card 1/3

A direct electronmicroscopic ...

S/236/62/000/002/003/004
E071/E135

glass fracture at an angle of 15-20° with platinum or tungsten oxide were used. These replicas, however, showed their own structure and not that of the glass. Subsequently carbon-platinum replicas were made, applying the method of D.E. Bradley, by spraying a thin platinum-carbon film at an angle of 45° to the surface of the glass. Since this method is very laborious and the replicas can to some extent distort the actual glass structure, a direct method of preparation of glass films for studying the structure was developed. Initially, this consisted in etching thin, polished glass plates (0.2-0.5 mm thick); later blown glass films were used which were subsequently etched in hydrofluoric acid or mixtures of hydrofluoric with another mineral acid, until a necessary thin film was obtained. The experimental procedure is described in some detail. The structure observed directly on a thus prepared specimen of $\text{Na}_2\text{O} \cdot \text{CdO} \cdot 0.5 \text{ SiO}_2$ glass was identical with that observed on the replica prepared by the Bradley method. The specimens prepared by etching showed not only the surface structure of glass, but in some cases the distribution of micrononuniformities in the whole thickness of the glass film. Therefore this method of investigation was used in further studies. It was established

Card 2/3

A direct electronmicroscopic ...

S/236/62/000/002/003/004
E071/E135

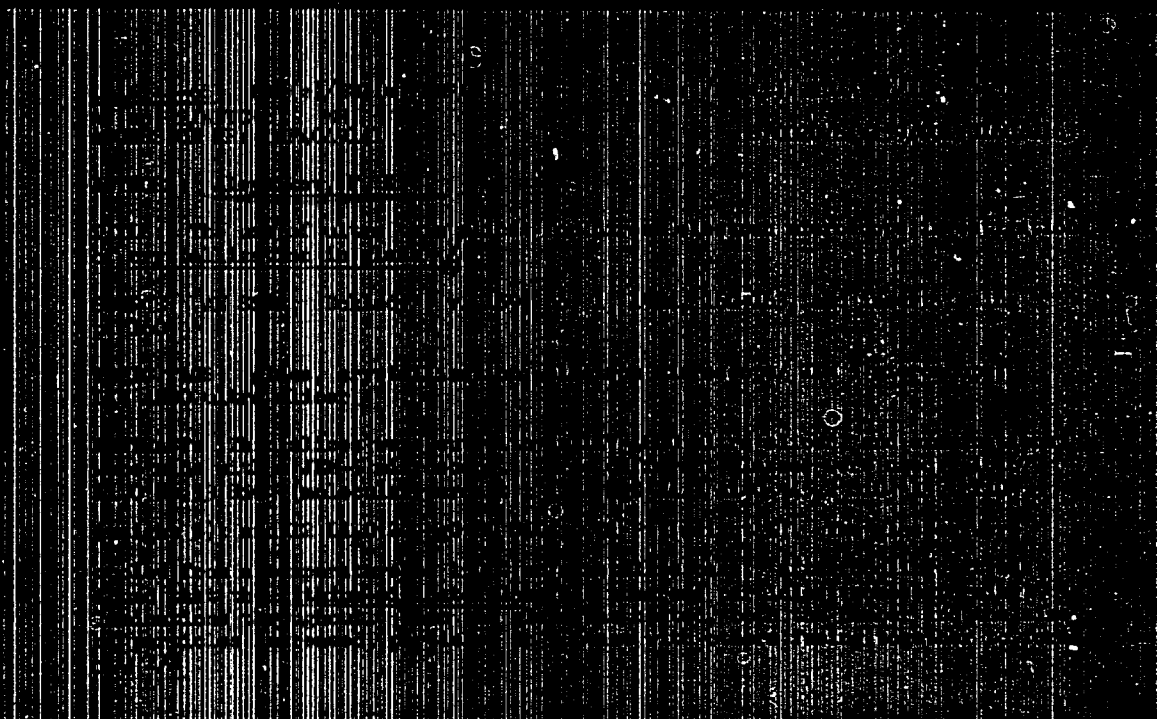
that none of the glasses investigated were homogeneous; they consist of a skeleton rich in silica and a multiplicity of microdendrites which depend on the chemical composition of glass as well as on its thermal history and technological factors. The majority of the glasses investigated had microdendrites of an order of 40-100 Å.

There are 4 figures and 1 table.

ASSOCIATION: Institut khimii i khimicheskoy tekhnologii
Akademii nauk Litovskoy SSR
(Institute of Chemistry and Chemical Technology,
AS Lithuanian SSR)

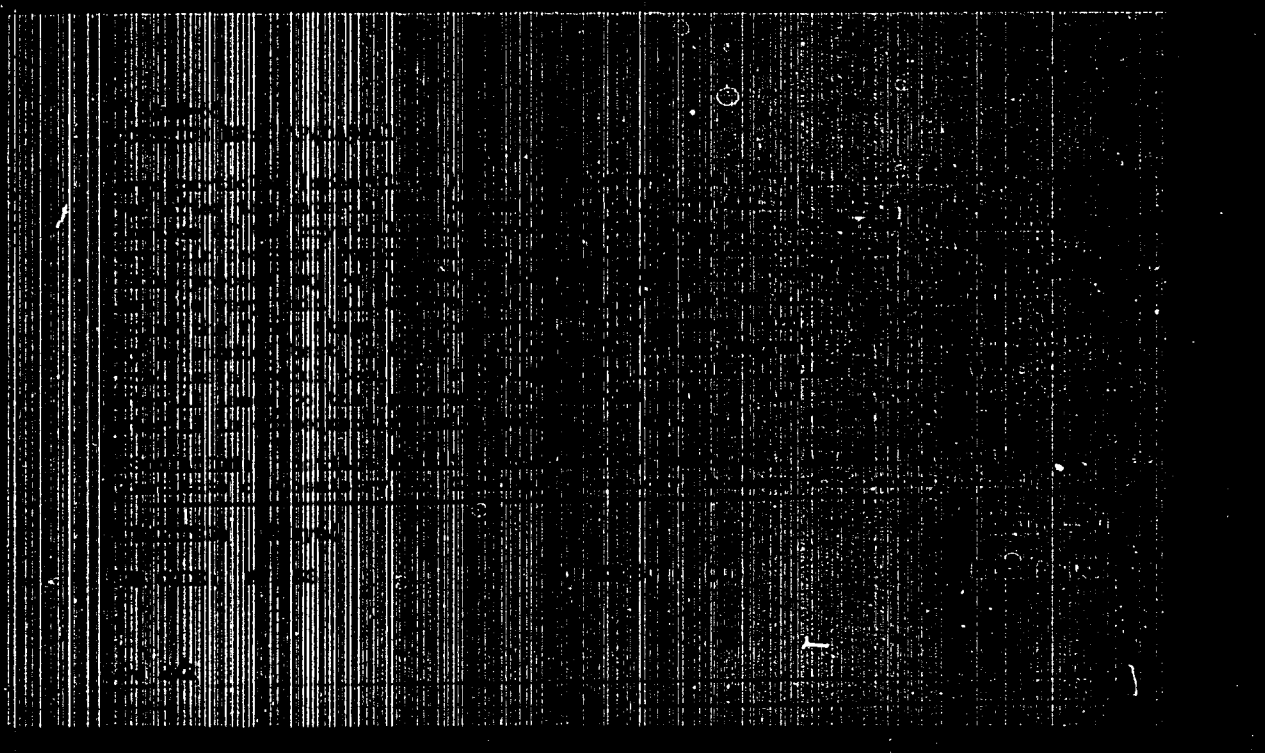
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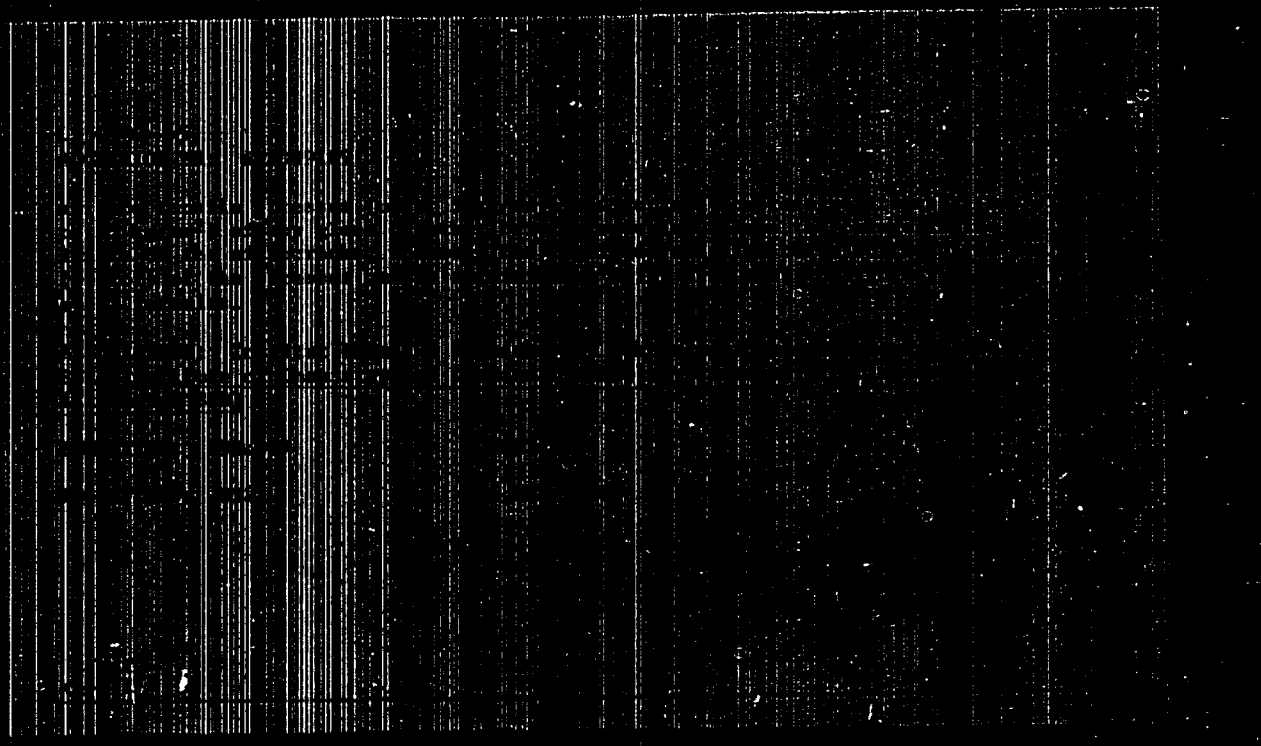
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PARFENOV, V.A.; ALEYNIKOV, F.K.; SLIZHIS, V.A. [Slizys, V.]

Use of the thermographic method for the determination of vitrification temperature. Trudy AN Lit. SSR. Ser.B no.1:33-38 '65. (MIRA 18:7)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

1104 總發行所 東京市神田區大塚 1-1-1 丸井印刷株式會社

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AUTHOR: Alekhnov, E.E.; Panfiliyev, E.B.; Parfenov, V.A.;

87-96507-470-0000

ORG: Institute of Chemistry and Chemical Technology AN LitSSR (Institut
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TITLE: Effect of heat treatment on some physical and mechanical properties and on the structure of silicate glasses. **17. Mechanical properties**

SOURCE: AN LASHIN, I. I., and V. A. Vasil'ko-Vasnetsovskiy, Khimicheskaya, geologicheskaya i tektonicheskaya struktura, no. 2, 1965, 97-109

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ABSTRACT: A study was made of the effects of high temperature heat treatment of window glass and of glasses with a molar ratio of Na_2O - SiO_2 - SrO , where SiO_2 represents beryllium oxide, Magnesium oxide, calcium oxide, strontium oxide, cadmium oxide, or barium oxide. These effects were measured in terms of microhardness, micro-breaking strength, bending strength, and elastic state. The samples were subjected to heat treatment at 550, 650, 800, and 1200°C and were held at these temperatures for periods of 3, 6, 12, 50, 100, and 500 hours. Experimental results are

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<p>presented in tabular form. It was found that, while the microhardness within limits of the experimental error is practically independent of heat treatment, the micro-breaking strength and the bending strength for glasses without a tendency toward crystallization increase insignificantly as a function of the heat treatment, while for glasses with a tendency toward crystallization they decrease. It was shown that microbrittleness, as a function of the heat treatment, increases to a greater degree the greater the tendency of the glass toward crystallization. The Poisson coefficient of the glasses, within the limits of experimental error, does not vary as a function of the heat treatment, while the Young modulus and the shear modulus increase insignificantly. In general it is concluded that it is impossible to increase the strength of glasses by prolonged heat treatment. Orig. Art. has: 6 tables.</p>	
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